[4910-13-P]

#### DEPARTMENT OF TRANSPORTATION

**Federal Aviation Administration** 

**14 CFR Part 39** 

[Docket No. FAA-2012-1156; Directorate Identifier 2011-NM-205-AD]

RIN 2120-AA64

**Airworthiness Directives;** The Boeing Company Airplanes

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede an existing airworthiness directive (AD) that applies to certain The Boeing Company Model 737-200, -200C, -300, and -400 series airplanes. The existing AD currently requires repetitive inspections to detect cracking of the corners of the door frame and the cross beams of the aft cargo door, and corrective actions if necessary. The existing AD also requires a modification to the aft cargo door, which terminates the repetitive inspections. Since we issued that AD, we have received reports of cracking on doors on airplanes that were not included in the existing AD. This proposed AD would add airplanes to the applicability, add inspections and related investigative and corrective actions, and revise certain inspection types. This proposed AD would also reduce the compliance time, for certain doors, to do a modification of the doors. We are proposing this AD to prevent fatigue cracking of the corners of the door frame and the cross beams of the aft cargo door, which could result in rapid depressurization of the airplane.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <a href="http://www.regulations.gov">http://www.regulations.gov</a>. Follow the instructions for submitting comments.
  - Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <a href="https://www.myboeingfleet.com">https://www.myboeingfleet.com</a>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington 98057-3356. For information on the availability of this material at the FAA, call 425-227-1221.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <a href="http://www.regulations.gov">http://www.regulations.gov</a>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Alan Pohl, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: (425) 917-6450; fax: (425) 917-6590; email: alan.pohl@faa.gov.

#### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2012-1156; Directorate Identifier 2011-NM-205-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <a href="http://www.regulations.gov">http://www.regulations.gov</a>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

#### Discussion

On July 2, 2001, we issued AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001), for certain The Boeing Company Model 737-200, -200C, -300, and -400 series airplanes. That AD requires repetitive inspections to detect cracking of the corners of the door frame and the cross beams of the aft cargo door, and corrective actions, if necessary. That AD also requires a modification to the aft cargo door, which terminates the repetitive inspections. That AD resulted from reports of cracking in the forward and aft corner frame of the aft cargo door and in the lower cross beam. We issued that AD to prevent fatigue cracking of the corners of the door frame and the cross beams of the aft cargo door, which could result in rapid depressurization of the airplane.

# Actions Since Existing AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001) Was Issued

Since we issued AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001), we received reports of cracking on doors on airplanes that were not included in the existing AD. Therefore, we have determined that the applicability of AD 2000-06-13 R1 must be expanded to include all The Boeing Company Model 737-200, -200C, -300, -400, and -500 series airplanes in order to adequately address the identified unsafe condition. The existing AD also bases compliance times and repetitive intervals on airplane flight cycles. Since that AD was issued, we have determined that door interchangeability has a significant impact on addressing the unsafe condition. Doors may be rotated from airplane to airplane, and a door may have accumulated considerably more cycles than the airplane on which it is installed. Therefore, this proposed AD bases compliance times and repetitive intervals on door flight cycles.

In addition, more work is necessary on airplanes that have not accomplished the repair or preventive modification specified in Boeing Alert Service Bulletin 737-52A1079, Revision 6, dated November 18, 1999, or previous issues of that service bulletin. We have also determined that the compliance time to do a modification of those doors should be reduced. We referred to Boeing Alert Service Bulletin 737-52A1079, Revision 6, dated November 18, 1999, as the appropriate source of service information for accomplishing the required actions specified in AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001). We have also determined that additional work is necessary on airplanes on which certain repairs and modifications specified in Boeing Alert Service Bulletin 737-52A1079, Revision 6, dated November 18, 1999, or previous issues of that service bulletin, have been done.

#### **Relevant Service Information**

We reviewed the following service information:

- Boeing Alert Service Bulletin 737-52A1153, dated July 13, 2011.
- Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated
  December 17, 2010.
- Boeing Special Attention Service Bulletin 737-52-1154, dated December 17, 2010.

For information on the procedures and compliance times, see this service information at http://www.regulations.gov by searching for Docket No. FAA-2012-1156.

#### FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

#### **Proposed AD Requirements**

This proposed AD would retain all the requirements of AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001). This proposed AD would add airplanes to the applicability. This proposed AD would also require accomplishing the actions specified in the service information described previously, except as discussed under "Differences Between the Proposed AD and the Service Information."

The phrase "related investigative actions" might be used in this proposed AD. "Related investigative actions" are follow-on actions that (1) are related to the primary action, and (2) are actions that further investigate the nature of any condition found. Related investigative actions in an AD could include, for example, inspections.

In addition, the phrase "corrective actions" might be used in this proposed AD. "Corrective actions" are actions that correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

## **Change to Existing Requirements**

Since AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001), was issued, the AD format has been revised, and certain paragraphs have been rearranged. As a result, the corresponding paragraph identifiers have changed in this proposed AD, as listed in the following table:

## Revised paragraph identifiers

Requirement in existing AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001)	Corresponding requirement in this proposed AD		
paragraph (a)	paragraph (h)		
paragraph (b)	paragraph (i)		
paragraph (c)	paragraph (j)		
paragraph (d)	paragraph (k)		
paragraph (e)	paragraph (l)		

We have revised the retained paragraph (d) of AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001) (which corresponds to paragraph (k) of this proposed AD), by removing reference to Boeing 737 Nondestructive Test Manual, Part 6, Chapter 51-00-00 (Figure 4 or Figure 23) for the high frequency eddy current inspection. Instead, we have added Note 1 to paragraph (k) of this proposed AD to specify that guidance on the inspection can be found in Boeing 737 Nondestructive Test Manual, Part 6, Chapter 51-00-00 (Figure 4 or Figure 23).

We have also moved the method of compliance specified in Note 3 of AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001), into paragraph (m) of this proposed AD.

We have also revised the language for the credit for previous service information specified in Note 4 of AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001), and included it in paragraph (n) of this proposed AD.

### Differences Between the Proposed AD and the Service Information

Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010; and Boeing Special Attention Service Bulletin 737 52-1154, dated December 17, 2010; specify to contact the manufacturer for instructions on how to repair certain conditions, but this proposed AD would require repairing those conditions in one of the following ways:

- In accordance with a method that we approve; or
- Using data that meet the certification basis of the airplane, and that have been approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

Table 2 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010, references an incorrect part number for reinforcement angles. Paragraph (q) of this proposed AD specifies the correct part number.

Boeing Alert Service Bulletin 737-52A1153, dated July 13, 2011; and Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010; specify accomplishing supplemental structural inspections. Those inspections are not required by this proposed AD. The damage tolerance inspections specified in those service bulletins may be used in support of compliance with section 121.1109(c)(2) or 129.109(b)(2) of the Federal Aviation Regulations (14 CFR 121.1109(c)(2) or 14 CFR 129.109(b)(2)).

### **Clarification of Line Numbers**

For certain actions, Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010, specifies line numbers 6 through 873 inclusive, but the corresponding action in Boeing Alert Service Bulletin 737-52A1153, dated July 13, 2011, specifies line numbers prior to 874. Airplanes having line numbers 1 through 5 are out of service; therefore, those airplanes are not subject to the requirements of this proposed AD.

## **Costs of Compliance**

We estimate that this proposed AD affects 581 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

### **Estimated costs**

Action	Labor cost	Parts cost	Cost per product	Number of Airplanes of U.S. Registry	Cost on U.S. operators
Detailed inspection [retained action from existing AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001)]	2 work-hours X \$85 per hour = \$170 per inspection cycle	\$0	\$170 per inspection cycle	494	\$83,890 per inspection cycle
High frequency eddy current inspection [retained action from existing AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001)]	4 work-hours X \$85 per hour = \$340 per inspection cycle	\$0	\$340 per inspection cycle	494	\$167,960 per inspection cycle

Action	Labor cost	Parts cost	Cost per product	Number of Airplanes of U.S. Registry	Cost on U.S. operators
Modification [retained action from existing AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001)]	144 work-hours X \$85 per hour = \$12,240	\$5,430	\$17,670	494	\$8,728,980
Determination of door configuration [new proposed action]	1 work-hour X \$85 per hour = \$85	\$0	\$85	581	\$49,385
Inspections [new proposed action]	6 work-hours X \$85 per hour = \$510 per inspection cycle	\$0	\$510 per inspection cycle	581	\$296,310 per inspection cycle
Modification [new proposed action]	59 work-hours X \$85 per hour = \$5,015	\$30,536	\$35,551	(1)	Unknown

<sup>&</sup>lt;sup>1</sup>The number of airplanes that would be required to have this modification accomplished is dependent on no cracking being found during a certain inspection.

We estimate the following costs to do any necessary related investigative and corrective actions that would be required based on the results of the proposed inspections. We have no way of determining the number of aircraft that might need these actions:

#### **On-condition costs**

Action	Labor cost	Parts cost	Cost per product
Related investigative and corrective actions	59 work-hours <i>X</i> \$85 per hour = \$5,015	\$30,536	\$35,551

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator.

Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
  - (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

## § 39.13 [Amended]

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001), and adding the following new AD:

**The Boeing Company**: Docket No. FAA-2012-1156; Directorate Identifier 2011-NM-205-AD.

#### (a) Comments Due Date

The FAA must receive comments on this AD action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

### (b) Affected ADs

This AD supersedes AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001), which revised AD 2000-06-13, Amendment 39-11654 (65 FR 17583, April 4, 2000). AD 2000-06-13 superseded AD 98-25-06, Amendment 39-10931 (63 FR 67769, December 9, 1998).

### (c) Applicability

This AD applies to all The Boeing Company Model 737-200, -200C, -300, -400, and -500 series airplanes, certificated in any category.

#### (d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 52, Doors.

#### (e) Unsafe Condition

This AD was prompted by reports of cracking in the forward and aft corner frame of the aft cargo door and in the lower cross beam. We are issuing this AD to prevent fatigue cracking of the corners of the door frame and the cross beams of the aft cargo door, which could result in rapid depressurization of the airplane.

## (f) Compliance

Comply with this AD within the compliance times specified, unless already done.

## (g) Affected Airplanes for Retained Paragraphs

Paragraphs (h), (i), (j), (k), and (l) of this AD are restated from AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001). These paragraphs apply to Model 737-200 and -200C series airplanes, line numbers 6 through 873 inclusive; and Model 737-200, -200C, -300, and -400 series airplanes, line numbers 874 through 1642 inclusive; equipped with an aft cargo door having Boeing part number (P/N) 65-47952-1 or P/N 65-47952-524, excluding airplanes identified in paragraphs (g)(1) and (g)(2) of this AD.

- (1) Those airplanes on which that door has been modified as specified in Boeing Service Bulletin 737-52-1079. Or,
- (2) Those airplanes on which the door assembly having P/N 65-47952-524 includes four straps (P/Ns 65-47952-139, 65-47952-140, 65-47952-141, and 65-47952-142) and a thicker lower cross beam web (P/N 65-47952-157).

#### (h) Retained Inspections and Corrective Actions

This paragraph restates the actions required by paragraph (a) of AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001), with revised service information. For airplanes identified in paragraph (g) of this AD: Within 90 days or 700 flight cycles after December 24, 1998 (the effective date of AD 98-25-06, Amendment 39-10931 (63 FR 67769, December 9, 1998)), whichever occurs later, perform an internal detailed visual inspection to detect cracking of the corners of the door

frame and the cross beams of the aft cargo door, in accordance with Boeing Service Bulletin 737-52-1079, Revision 5, dated May 16, 1996; Boeing Alert Service Bulletin 737-52A1079, Revision 6, dated November 18, 1999; or Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010. Accomplishment of the modification required by paragraph (l) of this AD constitutes terminating action for the repetitive inspection requirements of this paragraph. Doing the inspections required by paragraph (p) or (s) of this AD terminates the inspections required by this paragraph.

- (1) If no cracking is detected, accomplish the requirements of either paragraph(h)(1)(i) or (h)(1)(ii) of this AD.
- (i) Repeat the internal visual inspection thereafter at intervals not to exceed 4,500 flight cycles. Or
- (ii) Prior to further flight, modify the corners of the door frame and the cross beams of the aft cargo door, in accordance with Boeing Service Bulletin 737-52-1079, Revision 5, dated May 16, 1996; Boeing Alert Service Bulletin 737-52A1079, Revision 6, dated November 18, 1999; or Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010. Accomplishment of such modification constitutes terminating action for the repetitive inspection requirements of paragraph (h)(1)(i) of this AD.
- (2) If any cracking is detected in the upper or lower cross beams, prior to further flight, modify the cracked beam, in accordance with Part I of the Accomplishment Instructions of Boeing Service Bulletin 737-52-1079, Revision 5, dated May 16, 1996; Part I of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-52A1079, Revision 6, dated November 18, 1999; or Part II of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010. Accomplishment of such modification constitutes terminating

action for the repetitive inspection requirements of paragraph (h)(1)(i) of this AD for the modified beam.

- (3) If any cracking is detected in the forward or aft upper door frame, prior to further flight, repair the frame and modify the corners of the door frame of the aft cargo door, in accordance with Part I of the Accomplishment Instructions of Boeing Service Bulletin 737-52-1079, Revision 5, dated May 16, 1996; Part I of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-52A1079, Revision 6, dated November 18, 1999; or Part II of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010; except as provided by paragraph (i) of this AD. Accomplishment of such modification constitutes terminating action for the repetitive inspection requirements of paragraph (h)(1)(i) of this AD for the upper door frame.
- (4) If any cracking is detected in the forward or aft lower door frame, prior to further flight, replace the damaged frame with a new frame, and modify the corners of the door frame of the aft cargo door, in accordance with Part I of the Accomplishment Instructions of Boeing Service Bulletin 737-52-1079, Revision 5, dated May 16, 1996; Part I of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-52A1079, Revision 6, dated November 18, 1999; or Part II of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010. Accomplishment of such modification constitutes terminating action for the repetitive inspection requirements of paragraph (h)(1)(i) of this AD for the lower door frame.

## (i) Retained Exception for Certain Actions Specified in Paragraphs (h) and (l) of this AD

This paragraph restates the requirement of paragraph (b) of AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001). For actions required by paragraphs (h) and (l) of this AD: Where Boeing Service Bulletin 737-52-1079,

Revision 5, dated May 16, 1996; Boeing Alert Service Bulletin 737-52A1079, Revision 6, dated November 18, 1999; or Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010; specifies that certain repairs are to be accomplished in accordance with instructions received from Boeing, this AD requires that, prior to further flight, such repairs be accomplished in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA; or using a method approved in accordance with the procedures specified in paragraph (x) of this AD.

## (j) Retained Corrective Actions for Certain Cracking Found During Inspection Required by Paragraph (h) of this AD

This paragraph restates the corrective action required by paragraph (c) of AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001), with revised service information. If any cracking of the outer chord of the upper or lower cross beams of the aft cargo door is detected during any inspection required by paragraph (h) of this AD, prior to further flight, accomplish the repair specified in paragraph (j)(1), (j)(2), (j)(3), or (j)(4) of this AD. For a repair method to be approved, as required by paragraphs (j)(1), (j)(3), and (j)(4) of this AD, the approval letter must specifically reference this AD.

- (1) Repair in accordance with a method approved by the Manager, Seattle ACO.
- (2) Repair in accordance with Boeing Alert Service Bulletin 737-52A1079, Revision 6, dated November 18, 1999; or Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010.
- (3) Repair in accordance with data meeting the type certification basis of the airplane approved by a Boeing Company Designated Engineering Representative who has been authorized by the FAA to make such findings.
- (4) Repair in accordance with a method approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

# (k) Retained Inspections and Corrective Actions for Airplanes Identified in Paragraph (g) of this AD

This paragraph restates the actions required by paragraph (d) of AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001), with revised service information. For airplanes identified in paragraph (g) of this AD: Within 4,500 flight cycles or 1 year after May 9, 2000 (the effective date of AD 2000-06-13, amendment 39-11654 (65 FR 17583, April 4, 2000), whichever occurs later, perform a high frequency eddy current inspection (HFEC) to detect cracking of the four corners of the door frame of the aft cargo door, using a method approved in accordance with the procedures specified in paragraph (x) of this AD, or in accordance with Boeing Alert Service Bulletin 737-52A1079, Revision 6, dated November 18, 1999; or Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010. Accomplishment of the modification required by paragraph (l) of this AD constitutes terminating action for the repetitive inspection requirements of this paragraph. Doing the inspections required by paragraph (p) or (s) of this AD terminates the inspections required by this paragraph.

Note 1 to paragraph (k) of this AD: Additional guidance for the inspection can be found in Boeing 737 Nondestructive Test Manual, Part 6, Chapter 51-00-00 (Figure 4 or Figure 23).

- (1) If no cracking of the corners of the door frame of the aft cargo door is detected, repeat the HFEC inspections thereafter at intervals not to exceed 4,500 flight cycles until accomplishment of the modification specified in paragraph (l) of this AD.
- (2) If any cracking of the corners of the door frame of the aft cargo door is detected, prior to further flight, replace the damaged frame with a new frame, and modify the four corners of the door frame, in accordance with Part II and Part III of the Accomplishment Instructions of Boeing Service Bulletin 737-52-1079, Revision 5, dated May 16, 1996; Part II and Part III of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-52A1079, Revision 6, dated November 18, 1999; or Part III and Part

IV of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010. Accomplishment of such modification constitutes terminating action for the repetitive inspection requirements of paragraph (k)(1) of this AD for that door frame.

## (l) Retained Terminating Action for Inspections Specified in Paragraphs (h) and (k) of this AD

This paragraph restates the action required by paragraph (e) of AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001), with revised service information. For airplanes identified in paragraph (g) of this AD: Within 4 years or 12,000 flight cycles after August 15, 2001 (the effective date of AD 2000-06-13 R1), whichever occurs later, modify the four corners of the door frame and the cross beams of the aft cargo door, in accordance with Part II of the Accomplishment Instructions of Boeing Service Bulletin 737-52-1079, Revision 5, dated May 16, 1996; Part II of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-52A1079, Revision 6, dated November 18, 1999; or Part III of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010. Accomplishment of that modification constitutes terminating action for the repetitive inspection requirements of paragraphs (h) and (k) of this AD.

## (m) Retained Method of Compliance

This paragraph restates the method of compliance of Note 3 of AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001). Accomplishment of the modification required by paragraph (a) of AD 90-06-02, Amendment 39-6489 (55 FR 8372, March 7, 1990), is considered acceptable for compliance with the requirements of paragraph (l) of this AD.

#### (n) Retained Credit for Previous Actions

This paragraph restates the credit given for service information specified in Note 4 of AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001). This paragraph provides credit for the modification of the corners of the door frame and the cross beams of the aft cargo door required by paragraph (l) of this AD, if the modification was accomplished prior to August 15, 2001 (the effective date of AD 2000-06-13 R1), using Boeing Service Bulletin 737-52-1079, dated December 16, 1983; Revision 1, dated December 15, 1988; Revision 2, dated July 20, 1989; Revision 3, dated May 17, 1990; or Revision 4, dated February 21, 1991.

### (o) New Requirement for Determining Door Configuration

At the applicable time specified in Table 1 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-52A1153, dated July 13, 2011, except as provided by paragraph (u)(1) of this AD: Inspect the door to determine the configuration, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-52A1153, dated July 13, 2011.

# (p) New Requirements for Certain Doors Subject to Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010

If, during the inspection required by paragraph (o) of this AD, any door is determined to be from any airplane having line numbers 6 through 873 inclusive, and neither the modification nor the repair specified in any service bulletin identified in paragraphs (p)(1) through (p)(7) of this AD has been done as of the effective date of this AD: Do a one-time HFEC and a one-time ultrasonic inspection for cracking of the upper and lower corner frames and the upper and lower cross beams, and do all applicable related investigative and corrective actions, in accordance with Parts II, III, IV, and VI of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010; and, as applicable, the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-52-1154, dated

December 17, 2010, as revised by Boeing Special Attention Service Bulletin 737-52-1154, Revision 1, dated August 3, 2011; except as provided by paragraphs (u)(2) and (u)(3) of this AD. Do the inspections at the applicable time specified in Table 1 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010; except as provided by paragraph (u)(4) of this AD. Do all applicable related investigative and corrective actions before further flight. If no cracking is found during the initial inspections, before further flight, do the modification in accordance with Part III of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010. Doing the inspection specified in this paragraph terminates the inspections required by paragraphs (h) and (k) of this AD.

- (1) Boeing Service Bulletin 737-52-1079, dated December 16, 1983.
- (2) Boeing Service Bulletin 737-52-1079, Revision 1, dated December 15, 1988.
- (3) Boeing Service Bulletin 737-52-1079, Revision 2, dated July 20, 1989.
- (4) Boeing Service Bulletin 737-52-1079, Revision 3, dated May 17, 1990.
- (5) Boeing Service Bulletin 737-52-1079, Revision 4, dated February 21, 1991.
- (6) Boeing Service Bulletin 737-52-1079, Revision 5, dated May 16, 1996.
- (7) Boeing Service Bulletin 737-52A1079, Revision 6, dated November 18, 1999.

# (q) Requirements for All Doors Subject to Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010

If, during the inspection required by paragraph (o) of this AD, any door is determined to be from any airplane having line numbers 6 through 873 inclusive: At the applicable time specified in Table 2 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010, except as provided by paragraph (u)(4) of this AD, inspect the lower corner frames to determine if the door has reinforcement angles, P/N 65C25180-9, -43, -10, -11, or -12, that were installed as specified in any service bulletin identified in paragraphs (q)(1) through (q)(5) of this AD.

If any affected reinforcement angle is found, do a one-time general visual inspection for edge margin and do a detailed inspection for cracks; in accordance with Part V of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010.

- (1) Boeing Service Bulletin 737-52-1079, dated December 16, 1983.
- (2) Boeing Service Bulletin 737-52-1079, Revision 1, dated December 15, 1988.
- (3) Boeing Service Bulletin 737-52-1079, Revision 2, dated July 20, 1989.
- (4) Boeing Service Bulletin 737-52-1079, Revision 3, dated May 17, 1990.
- (5) Boeing Service Bulletin 737-52-1079, Revision 4, dated February 21, 1991.

## (r) Corrective Actions for Inspections Specified in Paragraph (q) of this AD

If, during any inspection required by paragraph (q) of this AD, any crack is found, or if any edge margin does not meet the specification identified in Part V of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010, before further flight, do the actions specified in paragraphs (r)(1), (r)(2), and (r)(3) of this AD.

- (1) Replace the corner reinforcement angle, in accordance with Part III of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010.
- (2) Do a one-time detailed inspection or HFEC inspection for cracking at the forward and aft ends of cross beam D, in accordance with Part 1 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-52-1154, dated December 17, 2010. If any cracking is found, before further flight, do all applicable repairs in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-52-1154, dated December 17, 2010, except as provided by paragraph (u)(2) of this AD.

(3) Do a one-time detailed inspection or ultrasonic inspection for cracking on the frames, in accordance with Part 2 (detailed inspection) or Part 8 (ultrasonic inspection) of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-52-1154, dated December 17, 2010, as revised by Boeing Special Attention Service Bulletin 737-52-1154, Revision 1, dated August 3, 2011. If any cracking is found, before further flight, replace the frame in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010.

# (s) Requirements for Doors Subject to Boeing Alert Service Bulletin 737-52A1153, dated July 13, 2011

If, during the action required by paragraph (o) of this AD, a door is determined to be from an airplane having line numbers 874 and subsequent: At the applicable time specified in Tables 1 and 2 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-52A1153, dated July 13, 2011, except as provided by paragraph (u)(1) of this AD, do high frequency and detailed inspections for cracks in the forward and aft ends of cross beam E, and do all applicable related investigative and corrective actions, in accordance with Parts 1, 3, 4, 5, and 6 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-52A1153, dated July 13, 2011; and, as applicable, the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-52-1154, dated December 17, 2010, as revised by Boeing Special Attention Service Bulletin 737-52-1154, Revision 1, dated August 3, 2011; except as provided by paragraph (u)(2) of this AD. Do all applicable related investigative and corrective actions at the applicable time specified in Tables 1 and 2 of paragraph 1.E., "Compliance," of Boeing Service Bulletin 737-52A1153, dated July 13, 2011, except as provided by paragraph (u)(1) of this AD. If no cracking is found during the inspections specified in Boeing Alert Service Bulletin 737-52A1153, dated July 13, 2011, at the applicable time specified in Tables 1 and 2 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-52A1153, dated July 13, 2011, except as provided by paragraph (u)(1) of this AD, do the

modification in accordance with Parts 5 and 6, as applicable, of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-52A1153, dated July 13, 2011. Repeat the inspections thereafter at the times specified in Tables 1 and 2 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-52A1153, dated July 13, 2011, until the preventative modification or repair is done to both ends of cross beam E in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-52A1153, dated July 13, 2011. Doing the inspection specified in this paragraph terminates the inspections required by paragraphs (h) and (k) of this AD.

# (t) One Time Inspections for Doors Subject to Boeing Alert Service Bulletin 737-52A1153, dated July 13, 2011

If, during the actions required by paragraph (o) of this AD, a door is determined to be from an airplane having line numbers 874 and subsequent: At the applicable time specified in Tables 3 and 4 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-52A1153, dated July 13, 2011, except as provided by paragraph (u)(1) of this AD, do a one-time ultrasonic inspection of the frame and a detailed inspection of the reinforcing angle for cracks of the forward and aft ends of cross beam E, and do all applicable related investigative and corrective actions, in accordance with Parts 1, 3, 4, 7, and 8 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-52A1153, dated July 13, 2011; and, as applicable; the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-52-1154, dated December 17, 2010, as revised by Boeing Special Attention Service Bulletin 737-52-1154, Revision 1, dated August 3, 2011; except as provided by paragraph (u)(2) of this AD. Do all applicable related investigative and corrective actions before further flight.

## (u) Service Information Exceptions

The following exceptions apply to this AD.

(1) Where paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-52A1153, dated July 13, 2011, specifies a compliance time "after the original issue

date of this service bulletin," this AD requires compliance within the specified compliance time after the effective date of this AD.

- (2) Where Boeing Special Attention Service Bulletin 737-52-1154, dated December 17, 2010, specifies to contact Boeing for repair, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (x) of this AD.
- (3) Where Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010, specifies to contact Boeing for repair, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (x) of this AD.
- (4) Where paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010, specifies a compliance time "from the date of Revision 7 to this service bulletin," this AD requires compliance within the specified compliance time after the effective date of this AD.

## (v) Supplemental Structural Inspections

The supplemental structural inspections specified in Tables 5 and 6 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-52A1153, dated July 13, 2011; and Tables 3 and 4 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010; are not required by this AD.

Note 2 to paragraph (v) of this AD: The damage tolerance inspections specified in Tables 5 and 6 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-52A1153, dated July 13, 2011; and Tables 3 and 4 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010; may be used in support of compliance with section 121.1109(c)(2) or 129.109(b)(2) of the Federal Aviation Regulations (14 CFR 121.1109(c)(2) or 14 CFR 129.109(b)(2)).

The corresponding actions specified in the Accomplishment Instructions and figures of Boeing Alert Service Bulletin 737-52A1153, dated July 13, 2011; and Boeing Alert Service Bulletin 737-52A1079, Revision 7, dated December 17, 2010; are not required by this AD.

#### (w) Credit for Previous Actions

This paragraph provides credit for actions required by paragraphs (p), (q), and (r) of this AD, if the actions were accomplished before the effective date of this AD using any service information specified in paragraph (w)(1), (w)(2), (w)(3), (w)(4), (w)(5), (w)(6), or (w)(7) of this AD.

- (1) Boeing Service Bulletin 737-52-1079, dated December 16, 1983.
- (2) Boeing Service Bulletin 737-52-1079, Revision 1, dated December 15, 1988.
- (3) Boeing Service Bulletin 737-52-1079, Revision 2, dated July 20, 1989.
- (4) Boeing Service Bulletin 737-52-1079, Revision 3, dated May 17, 1990.
- (5) Boeing Service Bulletin 737-52-1079, Revision 4, dated February 21, 1991.
- (6) Boeing Service Bulletin 737-52-1079, Revision 5, dated May 16, 1996.
- (7) Boeing Alert Service Bulletin 737-52A1079, Revision 6, dated November 18, 1999

#### (x) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle ACO, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

- (2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.
- (3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes ODA that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.
- (4) AMOCs approved previously in accordance with AD 2000-06-13, Amendment 39-11654 (65 FR 17583, April 4, 2000); and AD 2000-06-13 R1, Amendment 39-12317 (66 FR 36146, July 11, 2001); are approved as AMOCs for the corresponding requirements of this AD.

## (y) Related Information

(1) For more information about this AD, contact Alan Pohl, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: (425) 917-6450; fax: (425) 917-6590; email: <a href="mailto:alan.pohl@faa.gov">alan.pohl@faa.gov</a>.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <a href="https://www.myboeingfleet.com">https://www.myboeingfleet.com</a>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on November 21, 2012.

Ali Bahrami, Manager, Transport Airplane Directorate, Aircraft Certification Service.

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